

Integrated Wavelength Router

Abstract

5 A router comprises a demultiplexer arranged to receive an input WDM signal containing N wavelengths, and apply its output, namely, the N separated wavelengths, to a binary tree containing $\log_2 K$ stages of interconnected 1×2 switches. The switches can be integrated, and have their outputs crossing each other at each stage. The outputs of the final stage are applied to, and combined in, K multiplexers,
10 which provide the K outputs of the router. If desired, a set of shutters can be interposed in the waveguides leading to the multiplexer inputs, thereby providing additional isolation.